

Claims

1. A process for the production of lupin protein extracts from lupins, comprising:
 - (a) extracting lupin meal or flour with water at alkaline pH;
 - 5 (b) separating an alkali soluble lupin protein containing component from an alkali insoluble fibrous component;
 - (c) adjusting the pH of the protein component with acid to a pH between 3-5.0, and thereafter separating a food grade lupin protein extract (PF1) from an acid soluble lupin protein containing component; and optionally,
 - 10 (d) reacting the acid soluble lupin protein containing component with a C₁-C₆ food grade organic solvent and recovering therefrom a second food grade lupin protein extract (PF3); or
 - (e) raising the pH of the acid soluble lupin protein component to pH 5-7, and optionally recovering a lupin protein isolate, followed by the addition of a C₁-C₆ food grade organic solvent and recovering therefrom a third food 15 grade lupin protein fraction (PF2).
2. A process according to claim 1 wherein lupin meal or flour is mixed with water at a ratio of lupin flour or meal to water of 1:2-10 on a w/w basis.
- 20 3. A process according to claim 1 wherein said lupin meal or flour is extracted with water at an alkaline pH of from about pH7- pH9.
4. A process according to claim 1, which comprises said process steps (a) through (c),
25 (a) through (d), or (a) to (c) and (e).
5. A process according to claim 1 wherein said food grade organic solvent is selected from ethanol and propanol.
- 30 6. A process according to claim 1 wherein one or more lupin protein extracts PF1, PF2 and PF3 are recovered.

7. A process according to claim 1 wherein a lupin protein isolate is recovered.
8. A process according to claim 1 which produces lupin protein extracts and isolate
5 having a light colour and bland non-bitter taste.
9. A process according to claim 1 for the production of a food grade lupin protein extract.
10. 10. A food product containing a lupin protein extract produced according to the process of claim 1.
11. A food product according to claim 10 wherein said lupin protein is a replacement
15 for dairy, egg, soy or meat protein in the food product.
12. A nutritional supplement containing a lupin protein extract produced according to the process of claim 1.
13. A nutritional supplement according to claim 12 containing lupin protein extract
20 PF1, PF2 or PF3.
14. A paper coating composition containing a lupin protein extract produced according to the process of claim 1.
- 25 15. A paper coating according to claim 14 wherein said lupin protein extract is selected from PF1, PF2 and PF3.
16. A feed ingredient containing a lupin protein extract produced according to the process of claim 1.

17. A feed ingredient according to claim 16 wherein said lupin protein extract is selected from PF1, PF2 and PF3.
18. A food product containing a lupin protein isolate produced according to the process of claim 1.
19. A food product according to claim 19 wherein said lupin protein isolate is a replacement for dairy, egg, soy or meat protein in said food product.
- 10 20. A process according to claim 1 wherein said alkali insoluble fibrous component is recovered.
- 15 21. A process according to claim 21 wherein said alkali insoluble fibrous component is washed in water and subsequently treated with one or more enzymes to produce galactose.